

## ABSTRACT

Disclosed is a method for measuring a propagation delay value of a frame transmitted by a UE (User Equipment) to a Node B in a TDD (Time Division Duplexing) mobile communication system. The UE acquires synchronization with the Node B based on a downlink pilot channel signal transmitted in a period of a downlink pilot time slot, and determines an estimated round trip delay value T1 by comparing transmission power of a physical common channel signal in a first time slot with reception power of the same signal. The UE receives a transmission point correcting value T2 through a forward physical access channel (FPACH) signal transmitted from the Node B in a period of one downlink time slot among the time slots, and transmits a physical random access channel (PRACH) message with the estimated round trip delay value T1 at a transmission point determined based on T2 and T1.